

Cones taken off Wallis and Futuna Islands, South-West Pacific (Mollusca, Gastropoda, Conidae)

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Abstract — Deep-water benthos off Wallis and Futuna Islands was sampled by dredging and trawling during the MUSORSTOM 7 expedition in 1992. Twenty eight species of the genus *Conus* were obtained, some of which had been translocated from shallow into deeper water. Four species remain unidentified and eighteen represent new regional records, the total number of *Conus* species recorded from this archipelago now standing at fifty-three. *Conus pacificus* n.sp., from 295-600 m, and *C. neptunus futunaensis* n.ssp., from 370-455 m, are described.

Key-words — Gastropoda, Conidae, Pacific, Wallis & Futuna Islands, systematics, new records, new species, new subspecies.

Gastéropodes Conidae du bathyat de Wallis et Futuna, Pacifique Sud

Résumé — Le benthos profond de la zone économique des îles Wallis et Futuna a été échantillonné par dragages et chalutages lors de la campagne MUSORSTOM 7 en 1992. Vingt-huit espèces de *Conus* sont reconnues dans le matériel récolté, dont quelques-unes du domaine littoral. Quatre espèces ne sont pas identifiées avec certitude et dix-huit n'étaient pas connues de la région, ce qui porte à cinquante-trois espèces l'inventaire des Conidae de ce petit archipel. Deux taxons du benthos profond sont décrits comme nouveaux : *Conus pacificus* n.sp., récolté entre 295 et 600 m, et *C. neptunus futunaensis* n.ssp., récolté entre 370 et 455 m.

Mots-clés — Gastropoda, Conidae, Pacifique, îles Wallis & Futuna, systématique, nouvelle espèce, nouvelle sous-espèce.

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INTRODUCTION

Our knowledge on the composition and distribution of the deep-water benthos in the Indo-Pacific is still fragmentary, since very few regions have been adequately sampled. In the present paper, we record material of the gastropod family Conidae from the slopes of the islands of Futuna, Alofi (together constituting the Hoorn or Horne Islands) and Wallis, and of the seamounts lying within the 200 mile economic zone of these islands. The material was obtained by Philippe Bouchet, Bernard Métyvier and Bertrand Richer de Forges on R.V. "Alis" during the MUSORSTOM 7 expedition carried out in 1992 by the Muséum national d'Histoire naturelle, Paris, and the Institut Français de Recherche Scientifique pour le Développement en Coopération (ORSTOM). A total of 142 dredgings and trawlings were carried out in the upper bathyal zone, down to 1300 m, but the collection also contains some material from less than 100 m depth. A narrative

of the cruise, together with a review of the tectonic history of the area and a station list were presented by RICHER DE FORGES & MENOU (1993).

ABBREVIATIONS AND TEXT CONVENTIONS

MNHN	Muséum national d'Histoire naturelle, Paris,
ZMA	Zoologisch Museum Amsterdam;
spm	specimen(s), doubtful if alive or dead collected;
sp	species;
lv	live collected specimen(s);
dd	dead collected specimen(s);
stn	station;
RD	relative diameter (maximum diameter of last whorl relative to aperture height);
RSH	relative spire height (shell length minus aperture height/aperture height).

All material is deposited in the Muséum national d'Histoire naturelle (MNHN, Paris) unless otherwise stated. We refer to RÖCKEL *et al.* (1995a) for references to the original descriptions and other relevant literature concerning the taxa discussed here.

SYSTEMATICS

Family CONIDAE Fleming, 1822

Genus CONUS Linnaeus, 1758

Conus acutangulus Lamarck, 1810

MATERIAL EXAMINED. — Waterwitch Bank: stn DW 538, 12°30.8'S – 176°40.3'W, 275-295 m, 1 spm.
Futuna Island: stn DW 497, 14°19.6'S – 178°04.8'W, 355-369 m, 1 dd.

REMARKS

The species has a vast Indo-West Pacific distribution and is known so far from depths of 0.5 m to 100 m. It is uncertain whether the present specimens have been translocated to the depths of 295-355 m, or represent a deep-water population of the species. The specimen from Waterwitch Bank is subadult (length 10.4 mm). The specimen from Futuna is adult (length 25.9 mm) and has strong, beaded spiral ribs on the last whorl.

Conus aphrodite Petuch, 1979

MATERIAL EXAMINED. — Futuna Island: stn DW 511, 14°14.0'S – 178°11.5'W, 400-450 m, 1 dd.

REMARKS

Conus aphrodite is a true deep-water species, known from the Ryukyu Islands (Japan), the Philippines, and New Caledonia where empty shells are found in 105-370 m. The single specimen

from Futuna (length 15.1 mm), which may have been translocated to 400-450 m depth, represents the first record from the area.

Conus bullatus Linnaeus, 1758

Conus bullatus — RICHARD 1983: 19.

MATERIAL EXAMINED. — Field Bank: stn DW 588, 12°17.3'S – 174°44.6'W, 490-500 m, 1 dd.

REMARKS

Conus bullatus is known from East Africa to the Marquesas and Hawaii and is most common from shallow sublittoral to about 50 m depth, although in the Philippines there are records down to 240 m. The subadult and dead specimen from Field Bank was probably translocated to 490-500 m.

Conus chiangi (Azuma, 1972)

MATERIAL EXAMINED. — Futuna Island: stn DW 514, 14°13.3'S – 178°10.7'W, 349-355 m, 1 dd.

REMARKS

First record from this area. *Conus chiangi* is a deep-water species found so far in Japan to the Philippines and New Caledonia, in 200-400 m depth.

Conus corallinus Kiener, 1845

MATERIAL EXAMINED. — Field Bank: stn DW 597, 12°31.4'S – 174°18.6'W, 469-475 m, 1 dd.

REMARKS

New record for this area. *Conus corallinus* was known from Okinawa (Japan) to Papua New Guinea and New Caledonia, mainly in subtidal depths but also in deep-water down to 240 m.

Conus crocatus Lamarck, 1810

MATERIAL EXAMINED. Field Bank: stn DW 596, 12°31.8'S – 174°18.9'W, 32 m, 1 spm.

REMARKS

This is an Indo-West Pacific species living in depths of 1-80 m. In the Pacific, recorded from Japan to the Marshall Islands, Samoa, Papua New Guinea and the Solomon Islands. The single shell from Field Bank is subadult and probably dead collected.

Conus cylindraceus Broderip & Sowerby I, 1830

MATERIAL EXAMINED. — Bayonnaise Bank: stn CP 629, 11°53.7'S – 179°32.3'W, 400–420 m, 1 fragment.

REMARKS

Conus cylindraceus is known from the Indian Ocean to Polynesia in depths down to about 25 m, indicating that the fragment from Bayonnaise Bank must have been translocated downslope.

Conus dusaveli (H. Adams, 1872)

MATERIAL EXAMINED. — Field Bank: stn DW 597, 12°31.4'S – 174°18.6'W, 469–475 m, 1 dd.
Wallis Island: stn DW 529, 12°31.4'S – 176°39.6'W, 500 m, 2 dd.

REMARKS

First record for the area. *Conus dusaveli* was earlier known from Ryukyu Islands (Japan) to the Philippines, and New Caledonia in depths of 50–290 m. One of the specimens from Wallis Island is a juvenile (length 15.9 mm) that probably represents this species.

Conus eburneus Hwass in Bruguière, 1792

Conus eburneus — RICHARD 1983: 19.

MATERIAL EXAMINED. — Wallis Island: stn Lagon sud, 13°22.3'S – 176°11.2'W, 52–55 m, 1 spm.

REMARKS

A species common in the Indo-Pacific from East Africa to Polynesia, intertidal to about 70 m, usually in depths of 1–15 m.

Conus eugrammatus Bartsch & Rehder, 1943

MATERIAL EXAMINED. — Tuscarora Bank: stn DW 556, 11°48.7'S – 178°18.0'W, 440 m, 1 dd.

REMARKS

The single specimen from Tuscarora Bank is in bad condition and its identity is somewhat equivocal. The presence in this region of *Conus eugrammatus*, currently known from Japan to the Philippines, Queensland and Hawaii, would not be unexpected.

Conus floccatus Sowerby II, 1841

Conus floccatus — RICHARD 1983: 19.

MATERIAL EXAMINED. — Bayonnaise Bank: stn CP 629, 11°53.7'S – 179°32.3'W, 400-420 m, 1 dd.

REMARKS

Conus floccatus is a species with a Western Pacific distribution living in depths of less than 100 m. The specimen from Bayonnaise Bank has probably been translocated.

***Conus generalis* Linnaeus, 1767**

MATERIAL EXAMINED. — Bayonnaise Bank: stn DW 625, 11°52.4'S – 179°33.8'W, 425-430 m, 1 juv spm.

REMARKS

An Indo-West Pacific species usually living in depths of 1-50 m, in the Philippines recorded down to 240 m.

***Conus imperialis* Linnaeus, 1758**

Conus imperialis — RICHARD 1983: 19.

MATERIAL EXAMINED. — Wallis Island: stn DW 529, 12°31.4'S – 176°39.6'W, 500 m, 2 dd.
Field Bank: stn DW 596, 12°31.8'S – 174°18.9'W, 32 m, 1 dd.

REMARKS

An Indo-West Pacific species, living intertidally to about 75 m. The specimens found at 500 m depth must have been translocated.

***Conus kanakinus* Richard, 1983**
(Fig. 10)

Conus kanakinus — RÖCKEL *et al.* 1995b: 575-576.

MATERIAL EXAMINED. — Wallis Island: stn DW 522, 13°10.7'S – 176°15.0'W, 650-765 m, 2 dd; stn DW 526, 13°13.4'S – 176°15.5'W, 355-360 m, 1 spm.
Waterwitch Bank: stn DW 538, 12°30.8'S – 176°40.3'W, 275-295 m, 1 spm.

REMARKS

We provisionally identify the four specimens from Wallis Island and Waterwitch Bank as *Conus kanakinus*, so far known only from the New Caledonia region, although doubts remain. The present specimens differ from the New Caledonian ones in having a less elongate last whorl and a colour pattern of dashes and lines instead of only spiral lines. On the other hand, the general facies are similar and the broad, paucispiral protoconch and the spire sculpture are iden-

tical. Two of the specimens are juveniles. The larger ones are 13.7 and 14.2 mm long, and may be adult.

***Conus kimioi* (Habe, 1965)**

MATERIAL EXAMINED. — Field Bank: stn DW 589, 12°16.2'S – 174°41.4'W, 400 m, 1 dd.
Futuna Island: stn DW 499, 14°19.6'S – 178°04.6'W, 290-395 m, 1 dd; stn DW 514, 14°13.3'S – 178°10.7'W, 349-355 m, 1 dd.

REMARKS

A new regional record of this deep-water species, earlier known from Japan to the Philippines and New Caledonia, in 120-250 m.

***Conus memiae* (Habe & Kosuge, 1970)**

MATERIAL EXAMINED. — Futuna Island: stn DW 499, 14°19.6'S – 178°04.6'W, 290-395 m, 1 dd; stn DW 509, 14°14.8'S – 178°11.5'W, 200-240 m, 1 dd.
Wallis Island: stn DW 526, 13°13.4'S – 176°15.5'W, 355-360 m, 1 dd.

REMARKS

A new record for this species, earlier known from Japan to the Philippines and Indonesia, the Solomon Islands and Fiji, generally in depths of 50-250 m.

***Conus neptunus futunaensis* n.ssp.**

(Figs 1-3)

TYPE MATERIAL. — Holotype and 4 paratypes MNHN, 1 paratype ZMA 3.95.014, 1 paratype collection Röckel.

TYPE LOCALITY. — Futuna Island, R.V. *Alis*, MUSORSTOM 7, stn DW 497, 14°19.6'S – 178°04.8'W, 355-369 m, 10 May 1992, P. Bouchet, B. Méjivier & B. Richer de Forges coll.

MATERIAL EXAMINED. Futuna Island: stn DW 497, 14°19.6'S – 178°04.8'W, 355-369 m (2 lv, holotype and paratype MNHN 44.7 × 19.0 mm); stn DW 499, 14°19.6'S – 178°04.6'W, 290-395 m (2 dd, paratypes MNHN 44.9 × 21 mm, 31.1 × 12.8 mm); stn DW 504, 14°19.6'S – 178°04.5'W, 300-390 m (3 dd, paratype ZMA 50.8 × 21.2 mm, coll Röckel 46.3 × 20.4 mm, MNHN 47.8 × 20.3 mm).
Wallis Island: stn DW 523, 13°12.0'S – 176°15.6'W, 455-515 m, 1 dd.

ETYMOLOGY. — Named after its type locality.

DESCRIPTION (holotype)

Shell medium-sized and moderately solid. Last whorl ovate (RD 0.52), outline convex, slightly constricted at the base. Shoulder angulate. Spire of moderate height (RSH 0.17), outline deeply concave. Protoconch broken, with probably more than two whorls, maximum diameter 0.8 mm. Teleoconch with 10.5 whorls, slightly stepped. Sutural ramp concave, with 2 strong and

1 weak spiral grooves, crossed by close-set axial ribs. First 8 whorls tuberculate. Upper part of last whorl smooth, basal part with 8-10 strong spiral ribs.

Ground colour cream with irregularly scattered dark brown, curved or angular axial dashes and triangular spots, concentrated and underlain light brown or light violet flecks on both sides of centre. Protoconch and base white. Aperture light violet.

Dimensions: shell length 45.5 mm, maximum diameter 19.5 mm, aperture height 37.6 mm.

REMARKS

Dimensions of paratypes range from 44.7 to 50.8 mm, RD 0.51-0.53, RSH 0.14-0.19, relative weight 0.11-0.22 g/mm. Number of protoconch whorls about 3, maximum diameter 0.75-0.8 mm. Number of teleoconch whorls 10.5-11.5, sutural ramps with 3-5 spiral grooves. Colour pattern generally sparser, light brown and paler than in the holotype. A light brown band may be present just below shoulder.

Conus neptunus futunaensis n.ssp. differs from *C. neptunus neptunus* Reeve, 1843 mainly in its ovate shape and smaller size. The last whorl of the nominal subspecies is elongately conical with almost straight sides, while the new subspecies has an ovate shape with convex sides. *C. neptunus neptunus*, known so far only from the Philippines and the South China Sea, attains a length of 80 mm, whereas the largest *Futuna* specimen is 50.8 mm long.

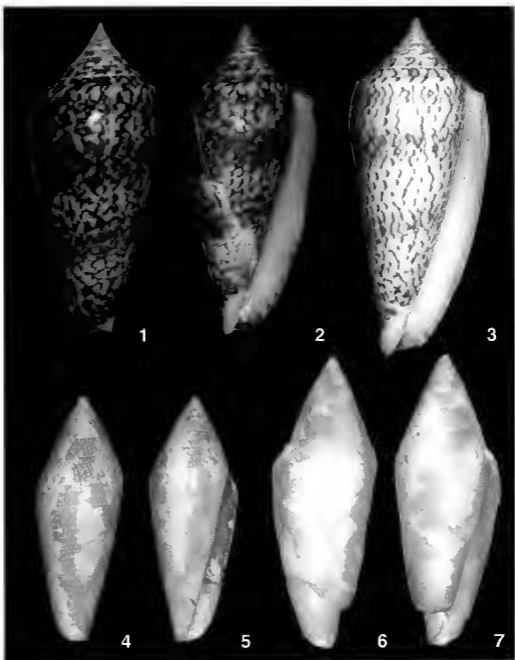
Conus neptunus futunaensis also resembles *C. laterculatus* Sowerby III, 1870, *C. australis* Holten, 1802, and *C. lienardi* Bernardi & Crosse, 1861. *Conus laterculatus* differs in its narrower and more cylindrical last whorl (RD 0.42-0.51), which is strongly sculptured with grooves and ribbons from base to shoulder. The spire of *Conus laterculatus* is generally lower (RHS 0.10-0.16), the colour pattern consists of more regularly arranged spots and dots instead of scattered lines and triangles. *Conus australis* can be distinguished by its larger size (shell length 60-105 mm), its generally narrower last whorl (RD 0.44-0.52) and its heavily sculptured last whorl. Finally, *Conus lienardi*, from New Caledonia, is similar in size and shape, occasionally also in its pattern, but differs in its less pronounced tubercles on the spire and the spiral grooves on the teleoconch sutural ramp. It also has a more rounded shoulder and an almost smooth last whorl with a white ground colour. The protoconch of *C. neptunus futunaensis* has three or more whorls whereas *C. lienardi* has only 2 to 2.5 whorls.

Conus orbigny Audouin, 1831

MATERIAL EXAMINED. — Futuna Island: stn DW 499, 14°19.6'S - 178°04.6'W, 290-395 m, 1 dd; stn DW 500, 14°19.5'S - 178°04.1'W, 350-394 m, 2 dd; stn DW 511, 14°14.0'S - 178°11.5'W, 400-450 m, 1 dd; stn DW 516, 14°13.5'S - 178°11.6'W, 441-550 m, 1 dd.

REMARKS

³ *Conus orbigny* is a deep-water species known from depths of 50-400 m. The Futuna Island population belongs to the nominal subspecies, whereas *Conus orbigny coriolisi* Moolenbeek & Richard, 1995 occurs off New Caledonia and in the Coral Sea. This is a new record for the area.



FIGS 1-7. — New taxa of *Conus* from Wallis and Futuna Islands. 1-3, *Conus neptunus futunaensis* n.ssp., Futuna Island; 1-2, holotype, length 45.5 mm, dorsal and ventral views; 3, paratype ZMA, length 50.8 mm, ventral view. 4-7, *Conus pacificus* n.sp., Bayonnaise Bank; 4-5, holotype, length 20.2 mm, dorsal and ventral views; 6-7, paratype ZMA, Waterwitch Bank, length 23.8 mm, dorsal and ventral views.

Conus pacificus n.sp.

(Figs 4-7)

TYPE MATERIAL. — Holotype and 1 paratype MNHN, 1 paratype ZMA 3.95.013.

TYPE LOCALITY. — Bayonnaise Bank, R.V. "Atis", MUSORSTOM 7, stn DW 626, 11°53.6'S – 179°32.0'W, 597-600 m, 29 May 1992, P. Bouchet, B. Métiévier & B. Richer de Forges coll.

MATERIAL EXAMINED. — Waterwitch Bank: stn DW 538, 12°30.8'S – 176°40.3'W, 275-295 m (1 dd, paratype ZMA, 23.8 mm × 8.7 mm, aperture height 16.5 mm, RD 0.53, RSH 0.31).

Field Bank: stn DW 588, 12°17.3'S – 174°44.6'W, 490-500 m (1 dd, paratype MNHN, 14.4 × 5.1 mm, aperture height 10.5 mm, RD 0.49, RSH 0.27).

ETYMOLOGY. — Named after the Pacific Ocean, where in the deep-sea many unknown animals still await to be discovered.

DESCRIPTION (holotype)

Shell small, cylindrical, fusiform, smooth, and glossy. Relative diameter (RD) of last whorl 0.49, relative spire height (RSH) 0.27. Protoconch partly broken, maximum diameter 0.8 mm. Teleoconch with 7.25 whorls, the first three to four whorls with small nodules and two spiral grooves. On the last whorl only one spiral groove. Shoulder slightly angulate, spire a little convex, sutural ramp almost flat. A few indistinct basal grooves.

Ground colour white, with light brown axial streaks and very fine spiral lines consisting of very fine white spots. On the last whorl four continuous axial brown streaks from base to suture.

Dimensions: shell length 20.2 mm, diameter 7.3 mm, aperture height 14.7 mm.

REMARKS

The paratypes agree in shape and colour with the holotype, one paratype (Figs 6-7) has repaired the severely broken base. None has a well preserved protoconch.

Superficially *Conus pacificus* n.sp. appears to be most similar to the sympatric species *Conus cylindraceus* Broderip & Sowerby 1, 1830, especially in its shape. It differs by the colour which is a redder brown in *C. cylindraceus*, and the presence of spiral white spotted lines. The protoconch of *Conus cylindraceus* is narrower (diameter 0.7 mm), its spire outline is sigmoid (upper part concave, following part convex) instead of convex, and the tuberculation of the spire whorls is less pronounced. *Conus auratinus* Da Motta, 1982, although attaining a larger size and having a lower spire, is also similar in shape and pattern and might be a closely related species. Juveniles of *Conus episcopatus* Da Motta, 1882 may have a similar colour pattern but always have a more flat-sided spire.

Conus saecularis Melvill, 1898

MATERIAL EXAMINED. — Bayonnaise Bank: stn CP 629, 11°53.7'S – 179°32.3'W, 400-420 m, 1 dd; stn DW 625, 11°52.4'S – 179°33.8'W, 425-430 m, 1 dd.

REMARKS

Conus saecularis is a deep-water species, living in depths of 85-400 m in the northwestern Indian Ocean and the western Pacific from the Ryukyu Islands (Japan) to the Solomon Islands and Papua New Guinea. This is the first record from the region.

Conus samiae Da Motta, 1982

MATERIAL EXAMINED. — Futuna Island: stn DW 499, 14°19.6'S – 178°04.6'W, 290-395 m, 1 dd.

REMARKS

The validity of *Conus samiae* is questionable. In the Philippines, it is found in deep water, where it may intergrade with *C. sulcatus* Hwass, 1792, variety *bocki* Sowerby III, 1881. Therefore *C. samiae* may be a form of *C. sulcatus*. The single specimen from Futuna Island is a strongly sculptured juvenile (length 26.5 mm) and is only tentatively identified as *Conus samiae*. This is the first record from the region of this species otherwise known from the Philippines and the Solomon Islands.

Conus sponsalis Hwass in Bruguière, 1792

Conus sponsalis — RICHARD 1983: 19.

MATERIAL EXAMINED. — Combe Bank: stn DW 543, 12°25.6'S – 177°28.2'W, 27-30 m, 1 spm.

REMARKS

Conus sponsalis is a wide-spread Indo-Pacific shallow-water species.

Conus sulcocastaneus Kosuge, 1981

MATERIAL EXAMINED. — Field Bank: stn DW 594, 12°31.0'S – 174°19.9'W, 495-505 m, 1 dd.

REMARKS

Conus sulcocastaneus is a deep-water species, found in depths of 120-240 m in the Philippines and the Marshall Islands. This is the first record from the area.

Conus tessulatus Born, 1778

Conus tessulatus — RICHARD 1983: 19.

MATERIAL EXAMINED. — Combe Bank: stn DW 542, 12°26.4'S – 177°28.2'W, 370 m, 1 dd.
Field Bank: stn DW 596, 12°31.8'S – 174°18.9'W, 32 m, 1 lv.
Waterwitch Bank: stn DW 538, 12°30.8'S – 176°40.3'W, 275-295 m, 2 dd.

REMARKS

An Indo-Pacific species, living intertidally and subtidally to depths of 40 m. The empty shells from Combe and Waterwitch Banks have most probably been translocated.

Conus sp. 1
(Figs 8-9)

MATERIAL EXAMINED. — Futuna Island: stn DW 499, 14°19.6'S – 178°04.6'W, 290-395 m, 1 dd; stn DW 512, 14°13.5'S – 178°10.3'W, 210-245 m, 1 dd.

REMARKS

The identity of these two shells from Futuna Island is unclear. They superficially resemble *Conus praezellens* A. Adams, 1854, but differ in their less pyriform last whorl and particularly in protoconch characters. While typical *Conus praezellens* has a paucispiral protoconch with about 2 whorls, the protoconch of the smaller shell (length 22.3 mm) from Futuna Island is multispiral with three or more whorls. The protoconch of the larger specimen (length 35.9 mm) is broken. These two specimens apparently represent a distinct species.

Conus sp. 2
(Fig. 11)

MATERIAL EXAMINED. — Wallis Island: stn DW 522, 13°10.7'S – 176°15.0'W, 650-765 m, 1 dd.

REMARKS

The single specimen is in very bad condition and measures 24.4 mm in length (RD 0.50, RSH is 0.25). It may prove to be a juvenile of an already described species.

Conus sp. 3
(Fig. 12)

MATERIAL EXAMINED. — Futuna Island: stn DW 514, 14°13.3'S – 178°10.7'W, 349-355 m, 1 dd.

REMARKS

The 16.4 mm high specimen, which may be a juvenile, cannot at present be identified with any known species.

Conus sp. 4
(Figs 13-14)

MATERIAL EXAMINED. — Combe Bank: stn DW 539, 12°27.3'S – 177°27.3'W, 700 m, 2 dd; stn CP 552, 12°15.7'S – 177°27.8'W, 786-800 m, 1 dd.



FIGS 8-14. — Deep-water species of *Conus* from Wallis and Futuna Islands. 8-9, *Conus* sp. 1, Futuna Island, MUSORSTOM 7, stn DW 499, length 35.8 mm, ventral and dorsal views. 10, *Conus kanakinus*, Wallis Island, MUSORSTOM 7, stn DW 522, length 14.2 mm, dorsal view. 11, *Conus* sp. 2, Wallis Island, MUSORSTOM 7, stn DW 522, length 24.4 mm. 12, *Conus* sp. 3, Futuna Island, MUSORSTOM 7, stn DW 514, length 16.4 mm, dorsal view. 13-14, *Conus* sp. 4, Combe Bank, MUSORSTOM 7, stn DW 539, length 23.6 mm, ventral and dorsal views.

REMARKS

The three specimens belong to the *Conus profundorum* complex, which includes *Conus vaubani* Röckel & Moolenbeek, 1995 from the New Caledonia area. They differ from the latter species in having a brown protoconch and indistinct spiral striae on the spire. They may represent a local form of *Conus vaubani* or possibly an undescribed species.

DISCUSSION

Of the twenty-eight species of *Conus* collected during the MUSORSTOM 7 expedition, thirteen are truly deep-water species, with a main distribution below 100 m, and eleven are shallow-water species represented by translocated shells. In addition, four species, which are not identifiable with certainty, may belong to the deep-water fauna. This cone fauna appears to be considerably less diverse than elsewhere in the tropical western Pacific at similar depths, though it is by no means depauperate. Thirty-nine species are recorded from the New Caledonia region from depths greater than 100 m (RÖCKEL *et al.* 1995b), but this is the result of a much more intensive sampling effort. The cone fauna of the nearby Fiji Islands is known mainly through the work of CERNOHORSKY (1964), but the deep-water species have not been sampled.

RICHARD *et al.* (1981, 1982) and RICHARD (1983) have already recorded thirty-seven shallow-water species of *Conus* (actually thirty-five as we regard two of them as synonyms) from Wallis and Futuna. There had been no earlier records of deep-water Conidae from there. All thirteen deep-water species, as well as five shallow-water species collected during the expedition, are new records for the archipelago, thus bringing the total inventory to fifty-three species of *Conus*.

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